



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,486	12/14/2001	Steve B. Cousins	07447.0060	1007

7590 01/11/2006

Patent Documentation Center  
Xerox Corporation  
100 Clinton Ave S  
Xerox Sq. 20th FL  
Rochester, NY 14644

EXAMINER

SHAW, YIN CHEN

ART UNIT PAPER NUMBER

2135

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/014,486

Applicant(s)

COUSINS ET AL.

Examiner

Yin-Chen Shaw

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/01/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5,6,8-14,17,18 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8-14,17,18 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. This written action is responding to the amendment dated 11/01/2005.
2. Claims 1-2, 5-6, 8-9, 12, and 17 are amended. Claims 3-4, 7, 15-16, and 19-29 are cancelled while Claim 30 is newly added.
3. Claims 1-2, 5-6, 8-9, 12, 17, and 30 have been examined and rejected. Claims 1-2, 5-6, 8-9, 12, 17, and 30 are pending.
4. Rejections of Independent claims are provided with detailed citations from the prior arts.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 5-6, 8-11, 17-18, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (U.S. Patent 5,490,217) and further in view of Shioda et al. (U.S. Patent 6,634,559).

a. Referring to Claim 1:

As per Claim 1, Wang et al. disclose an apparatus for creating a tamper-proof document, comprising:

an encoder **[a machine readable image code encoder 4 (lines 65-66, Col. 3)]** configured to digitally encode **[encode (line 18, Col. 3)]** a user-inputted portion **[an actual signature (line 19, Col. 3)]** of the document as encoded information **[documents generated by the system of the present invention contain the machine readable image code affixed thereon (lines 49-51, Col. 4)]**;

an access selector configured to select a level access for the encoded information **[An automatic document handling system which includes programmed general pupose computer means for processing and storing documents (line 25-28, Col. 2). Yet another embodiment of the present invention is a system which may be used to encode certain identifying information such as an actual signature, seal, finger prints, retina feature, facial picture, significant dates and the like into the machine readable image code. The encoded (an encrypted if desired) image may then be reproduced on a document such as a check, passport, etc. (lines 17-23, Col. 3 and Fig. 3); where encryption process means that only rightful users with authorized key to decrypt the useful information and, thus, provide an access control]**;

a printer configured to print **[a printer (Fig. 8); where the printer is used for printing purpose]** the tamper-proof document including the encoded information **[documents generated by the system of the**

**present invention contain the machine readable image code affixed thereon (i.e., lines 49-51, Col. 4)].**

Wang et al. do not expressly disclose the remaining limitations of the claim. However, Shioda et al. disclose:

a placement selector configured to select a location on the tamper-proof document to place the encoded information [In details, the bar code 115 includes codes used by the reading device for confirming a password for the printed matter, permitting the printed matter only to be printed, enabling only creation of a file or only fax of the file, or letting a holder of the printed matter select a process among several processes by displaying a menu. It should be noted that the bar code 115 may include information about the password (lines 59-66, Col. 6). Additionally, the bar code 115 may be printed at any location on the printed matter (lines 7-8, Col. 7). The program including the steps of recording an entire document on the first area by encoding the entire document to a code readable by the computer, and recording a reduced image of at least a part of the document on the second area for a user to preview the document (line 67, Col. 2 and lines 1-4, Col. 3); *where the bar code can be placed anywhere according to the user or printer choice through the software program application*];

a processor configured to process, responsive to said access selector, the encoded information [The above-described objects of the present invention are also achieved by a recording medium readable by a computer, tangibly embodying a program of instructions executable by the computer (lines 63-66, Col. 2). The control-amount calculating unit 300 includes a CPU (Central Processing Unit) 301 and a memory 302 (lines 43-46, Col. 24 and Fig. 22); *where the CPU is a processor, contained in every computing device, for processing information based on the software program instructions*]; and

encoded information as an area of glyph marks at the location [The image forming system 33 includes a printer 45 and a scanner 47. The code-processing program 35 includes an encoder 37 and a decoder 39 (lines 46-48, Col. 9). The bar code 115 includes codes used by a reading device to perform processes planned by a creator of the printed matter. In details, the bar code 115 includes codes used by the reading device for confirming a password for the printed matter, permitting the printed matter only to be printed, enabling only creation of a file or only fax of the file, or letting a holder of the printed matter select a process among several processes by displaying a menu. It should be noted that the bar code 115 may include information about the password (lines 57-66,

**Col. 6). Additionally, a two dimensional bar code may be applied to the bar code 115. Alternatively, codes other than a bar code may be used as the barcode 115 (lines 4-7, Col. 7). A code used in the coding part 113, is for instance, a glyph code that is a coding format expressing zeros and ones by use of slashes facing left and right (lines 47-49, Col. 5 and Fig. 2); *where the bar code 115 may be replaced with other code, such as the glyph code, for encoding the information in a similar fashion as in component 113 of Fig. 2*].**

It would have been obvious to one of ordinary skill in the art at the time of invention was made to combine the system disclosed in Wang et al. with Shioda et al. to have the choice for placing the encoded data, as a glyph code, at user's discretion since one would have been motivated to provide a data sheet using only a recoding sheet such as paper as a medium, by which electronic document data can be distributed or carried with user, and the user can recognize information recorded on the recording sheet from a text or the like expressed on the recording sheet (lines 29-34, Col. 2 from Shioda et al.). Therefore, it would have been obvious to combine Wang et al. with Shioda et al. to obtain the invention as specified in Claim 1.

b. Referring to Claim 2:

As per Claim 2, Wang et al. and Shioda et al. disclose Claim 1. In addition, Wang et al. disclose the apparatus of claim 1, wherein the

tamper-proof document is a third-party check **[i.e., bank checks 32 (as shown in FIG. 9) (lines 7-8, Col. 6); where a check can be any kinds of check associated with financial institution or person]**.

c. Referring to Claim 5:

As per Claim 5, it is a method claim corresponding to the apparatus claim 1. Thus, it is rejected with the same rationale applied against Claim 1 above.

d. Referring to Claim 6:

As per Claim 6, it is a method claim corresponding to the apparatus claim 2. Thus, it is rejected with the same rationale applied against Claim 2 above.

e. Referring to Claim 8:

As per Claim 8, Wang et al. and Shioda et al. disclose the method of claim 5. In addition, Shioda et al. disclose wherein the user-inputted portion is handwritten **[(lines 29-32, Col. 7); where password information is hand-written]**.

f. Referring to Claim 9:

As per Claim 9, it encompasses limitations that are similar to those of Claim 5. Wang et al. and Shioda et al. both disclose decoding the encoded information as decoded information **[[decoding the encoded information to obtain decoded information (lines 13-14, Col. 3 from Shioda et al.)] and [When the bearer of such document attempts to**



**use same, the information contained in the machine readable image code may be scanned, decoded (and decrypted) (lines 23-26, Col. 3 from Wang et al.); *where the process of decoding the information will produce the decoded information*]].**

In addition, Wang et al. disclose a method for ensuring that a document has not been altered, comprising:

comparing the decoded information with the user-inputted portion [ **When the bearer of such document attempts to use same, the information contained in the machine readable image code may be scanned, decoded (and decrypted) compared to the human readable information contained on the image-containing document (lines 26-28, Col. 3)]; and**

identifying the document as altered, if the decoded information is not identical to the user-inputted portion [**if said document is altered, the altered version may be re-entered into the computer, the computer storage location of the original version of the document being identified by the information in said machine readable image code and then stored information may be updated based on the content of the altered version of the document (lines 46-52, Col. 2)]]. Wang et al. and Shioda et al. are analogous art because they are from similar technology relating to document encoding/decoding and printing processes. It would have been obvious to one of ordinary skill in the art**

at the time of invention was made to combine the system disclosed in Shioda et al. with the encryption process to limit the access as disclosed in Wang et al. since one would have been motivated to have documents be maintained in an accurate and easy to retrieve and verify fashion in addition to be updateable and updated without the introduction of error (lines 22-25, Col. 1 from Wang et al.). Therefore, it would have been obvious to combine Shioda et al. and Wang et al. to obtain the invention as specified in Claim 9.

g. Referring to Claim 10:

As per Claim 10, the rejection of Claim 9 is incorporated. In addition, Claim 10 encompasses limitations that are similar to those of Claim 8. Thus, it is rejected with the same rationale applied against Claim 8 above.

h. Referring to Claim 11:

As per Claim 11, Wang et al. and Shioda et al. disclose the method of Claim 9. In addition, Wang et al. disclose the method of claim 9, wherein the decoded information is a graphical recreation of the user-inputted portion [i.e., **When the bearer of such document attempts to use same, the information contained in the machine readable image code may be scanned, decoded (and decrypted) compared to the human readable information contained on the image-containing document (lines 26-28, Col. 3)].**

i. Referring to Claim 17:

As per Claim 17, it encompasses limitations that are similar to those of Claim 5. In addition, Shioda et al. disclose the claimed limitation as set forth in Claim 5 in addition of a computer-readable medium containing instructions for controlling a data processing system **[a recording medium storing a program readable by the data-sheet creating device for controlling the data-sheet creating device (lines 26-28, Col. 2)]**.

j. Referring to Claim 18:

As per Claim 18, the rejection of Claim 17 is incorporated. In addition, Claim 18 is a computer-readable medium claim corresponding to the method claim 8. Thus, it is rejected with the same rationale applied against Claim 8 above.

k. Referring to Claim 30:

As per Claim 30, the rejection of Claim 17 is incorporated. In addition, Claim 30 is a computer-readable medium claim corresponding to the method claim 6. Thus, it is rejected with the same rationale applied against Claim 6 above.

6. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (U.S. Patent 5,490,217) and Shioda et al. (U.S. Patent 6,634,559), and further in view of Mayer, Jr. et al. (U.S. Patent 4,202,626).

I. Referring to Claim 12:

As per Claim 12, Wang et al. and Shioda et al. disclose the method of claim 9. Wang et al. and Shioda et al. do not expressly disclose wherein the decoding step further comprises placing the document under a viewport of a lens apparatus, wherein the lens apparatus converts the encoded information to decoded information. However, Mayer, Jr. et al. disclose the decrypting device for authentication of documents, which bears a cryptographic representation of signature, through the lens of the viewing (decrypting) device [i.e., **As seen in FIG. 2, decrypting device 48 comprises a unitary decrypting lens array 50, corresponding to encrypting lens 28, which is closely juxtaposed to a bank check 52. Bank check 52 is held in place by spring-loaded clamping means particularly described in Mayer-Dobbins '109, and not shown herein. Bank check 52 is so juxtaposed to decrypting lens array 50 that the encrypted image from the film in camera 12 which is reproduced at its upper right hand corner directly confronts decrypting lens array 50 (lines 24-33, Col. 5). As will be evident to those having ordinary skill in the art, informed by the present disclosure and Mayer-Dobbins '109, an observer looking into opening 64 in the smaller end of housing 66, through lenses 60, 62, will see the signature made by the authorized drawer (user) on the signature line of bank check 52, and will also see, through**

**decrypting lens array 50 and lens 58, the drawer's signature as it appears on the signature card used in making the encrypted image which is reproduced on bank check 52 (lines 41-50, Col. 5)].** Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Wang et al. and Shioda et al. with Mayer, Jr. et al., since one would have been motivated to perform the acts of verifying and authenticating handwritten signature of authorized users of documents such as bank checks, savings account passbooks, credit cards, identification cards, and the like (line 56-59, Col. 1 from Mayer, Jr. et al.) prior to transferring the information to computer for further processing in order to save more time and resources.

m. Referring to Claim 13:

As per Claim 13, Wang et al., Shioda et al., and Mayer, Jr. et al. disclose the method of claim 12. In addition, Mayer, Jr. et al. disclose further comprising the step of superimposing the decoded information on the document [i.e., **In accordance with the teachings of the present invention, the signature 72 of an authorized drawer (user) of these checks, John D. Depositor, coincides with a representation 74 of said account code number 69134208, i.e., account code number representation 74 is superimposed on signature 72, or signature 72 is superimposed on account code number representation 74** (lines

64-68, Col. 5 and lines 1-2, Col. 6). As will be evident to those having ordinary skill in the art, informed by the present disclosure and Mayer-Dobbins '109, an observer looking into opening 64 in the smaller end of housing 66, through lenses 60, 62, will see the signature made by the authorized drawer (user) on the signature line of bank check 52, and will also see, through decrypting lens array 50 and lens 58, the drawer's signature as it appears on the signature card used in making the encrypted image which is reproduced on bank check 52 (lines 41-50, Col. 5)].

n. Referring to Claim 14:

As per Claim 14, Wang et al., Shioda et al., and Mayer, Jr. et al. disclose the method of claim 12. In addition, Wang et al. disclose further comprising the step of displaying the decoded information on the document [The encoder/decoder 4 will typically be a standard programmable micro-computer and includes a display (lines 3-4, Col. 4)].

### **Response to Arguments**

7. Applicant's amendment, filed on Nov. 01, 2005, has amended independent claims 1, 5, 9, 17 and some dependent claims. This necessitates the new grounds of rejection. See rejections above.

8. Applicant's amendment filed on Nov. 01, 2005, which also includes an additional claim (Claim 30), has been fully considered and examined. See the rejection above.

### Conclusion

9. Applicant's amendment necessitated the new grounds(s) of rejection presented in this Office Action. Accordingly, Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

- a. Roads et al. (U.S. Patent 6,614,914) disclose a watermark system includes an embedder, detector, and reader. The watermark embedder encodes a watermark signal in a host signal to create a combined signal.

The detector looks for the watermark signal in a potentially corrupted version of the combined signal, and computes its orientation. Finally, a reader extracts a message in the watermark signal from the combined signal using the orientation to approximate the original state of the combined signal. While adapted for images, video and audio, the watermark system applies to other electronic and physical media. For example, it can be applied to mark graphical models, blank paper, film and other substrates, texturing objects for ID purposes, etc.

- b. Gormish et al. (U.S. Patent 5,337,362) disclose a method and apparatus for placing digital data on plain paper. One embodiment of the present invention allows for the digital data to undergo encryption before being placed on the plain paper. In one embodiment, a photocopier is used for transferring digital encrypted data to and from a plain piece of paper. The photocopier allows digital data to be stored onto plain paper after encryption, such that the digital data is secure. The photocopier also includes a device to recognize the encrypted digitized pixels on the page such that they may be decrypted and the original image reproduced.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yin-Chen Shaw whose telephone number is 571-272-8593. The examiner can normally be reached on 8:00 to 4:00 M-F.



Art Unit: 2135

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Yen Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Y.C. Shaw

Jan. 03, 2005

A handwritten signature in black ink, appearing to read 'Y.C. Shaw', is written over a faint, rectangular stamp. The signature is fluid and cursive.